

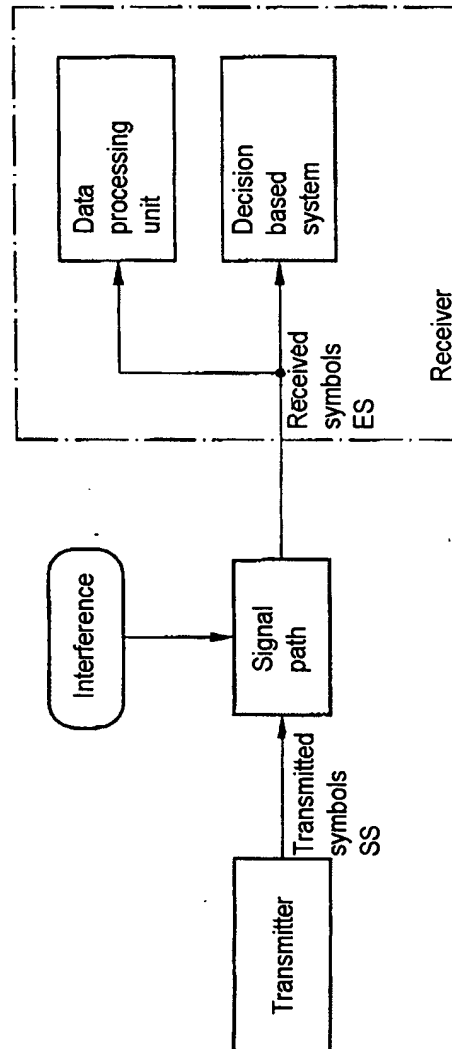


S3051

App. No. 10/799,346  
Missing Parts Dated: May 28, 2004  
Response to Missing Parts Dated: July 28, 2004  
Replacement Sheet

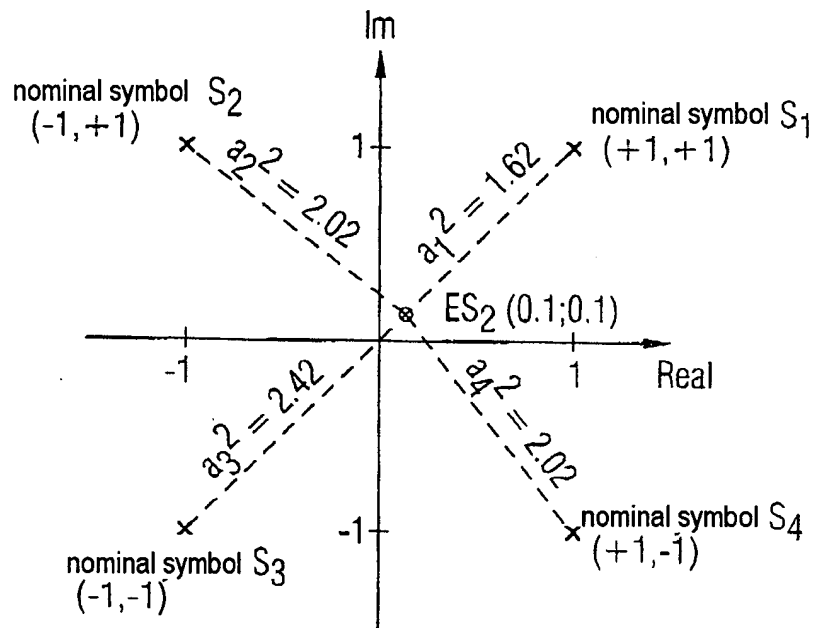
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FIG 1  
Prior art



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FIG 2  
Prior art



$$\text{Min} \{ a_i^2 \} = \text{Min} \{ 1.62; 2.02; 2.42; 2.02 \} = 1.62$$

4 nominal symbols

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# FIG 3

Prior art

## Example:

Transmitted symbol sequence (SS)		SS1	SS2	SS3	SS4	SS5	SS6
	Re	+1	-1	+1	-1	+1	+1
	Im	+1	+1	+1	-1	-1	-1
Received symbol sequence (ES)		ES1	ES2	ES3	ES4	ES5	ES6
	Re	1.5	0.1	0.4	-0.6	1.1	0.8
	Im	0.8	0.1	0.2	-0.1	-0.9	-2
Interval Min { $a_i^2$ }							
	$a_i^2$ (min)	0.29	1.62	1	0.97	0.02	1.04
Decision (ES)		ES1	ES2	ES3	ES4	ES5	ES6
	Re	+1	+1	+1	-1	+1	+1
	Im	+1	+1	+1	-1	-1	-1

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FIG 4

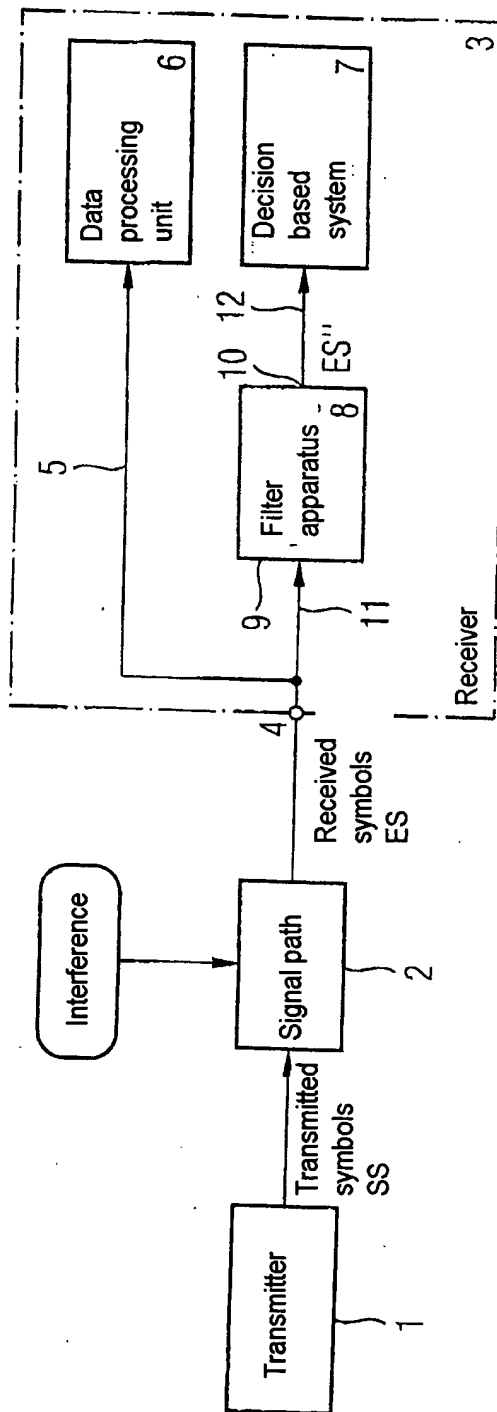
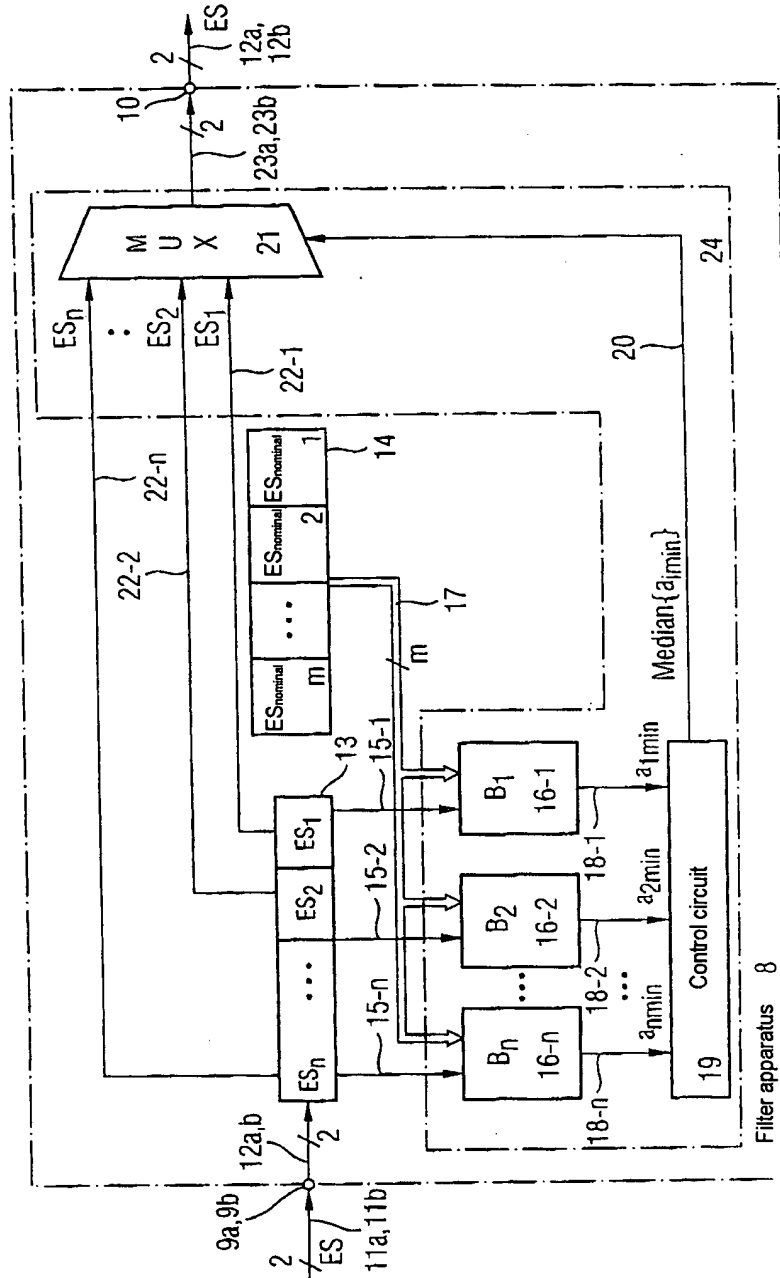


FIG 5

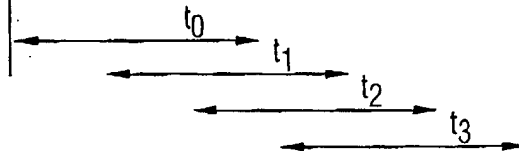


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FIG 6

Example:

		SS1	SS2	SS3	SS4	SS5	SS6
Transmitted symbol sequence (SS)	Re	+1	-1	+1	-1	+1	+1
	Im	+1	+1	+1	-1	-1	-1
		ES1	ES2	ES3	ES4	ES5	ES6
Received symbol sequence (ES')	Re	1.5	0.1	0.4	-0.6	1.1	0.8
	Im	0.8	0.1	0.2	-0.1	-0.9	-2



Interval $\text{Min} \{ a_i^2 \}_{(min)}$	0.29	1.62	1	0.97	0.02	1.04
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3-element groups :	$t_0$ ( 0.29 ; 1.62 ; 1 )	→	1 (Pos3)
	$t_1$ ( 1.62 ; 1 ; 0.97 )	→	1 (Pos2)
	$t_2$ ( 1 ; 0.97 ; 0.02 )	→	0.97 (Pos2)
	$t_3$ ( 0.97 ; 0.02 ; 1.04 )	→	0.97 (Pos1)

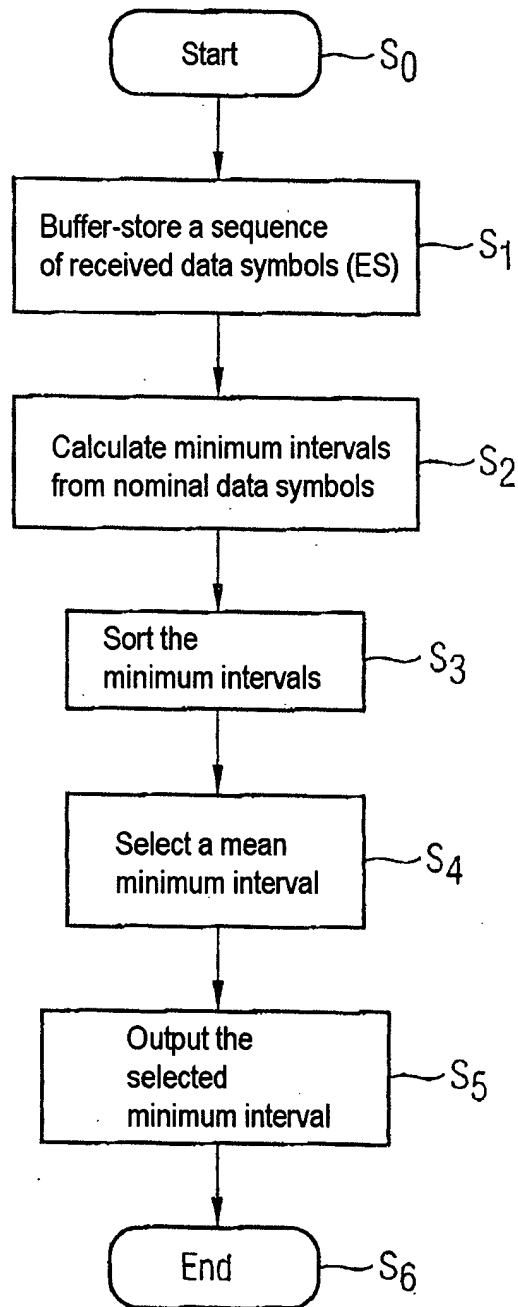
Sorted intervals                      Pos3   Pos2   Pos2   Pos1

		ES1'	ES2'	ES3'	ES4'
Filtered received symbol sequence (ES')	Re	0.4	0.4	-0.6	-0.6
	Im	0.2	0.2	-0.1	-0.1
		ES1	ES2	ES3	ES4
Decision E	Re	+1	+1	-1	-1
	Im	+1	+1	-1	-1

Table

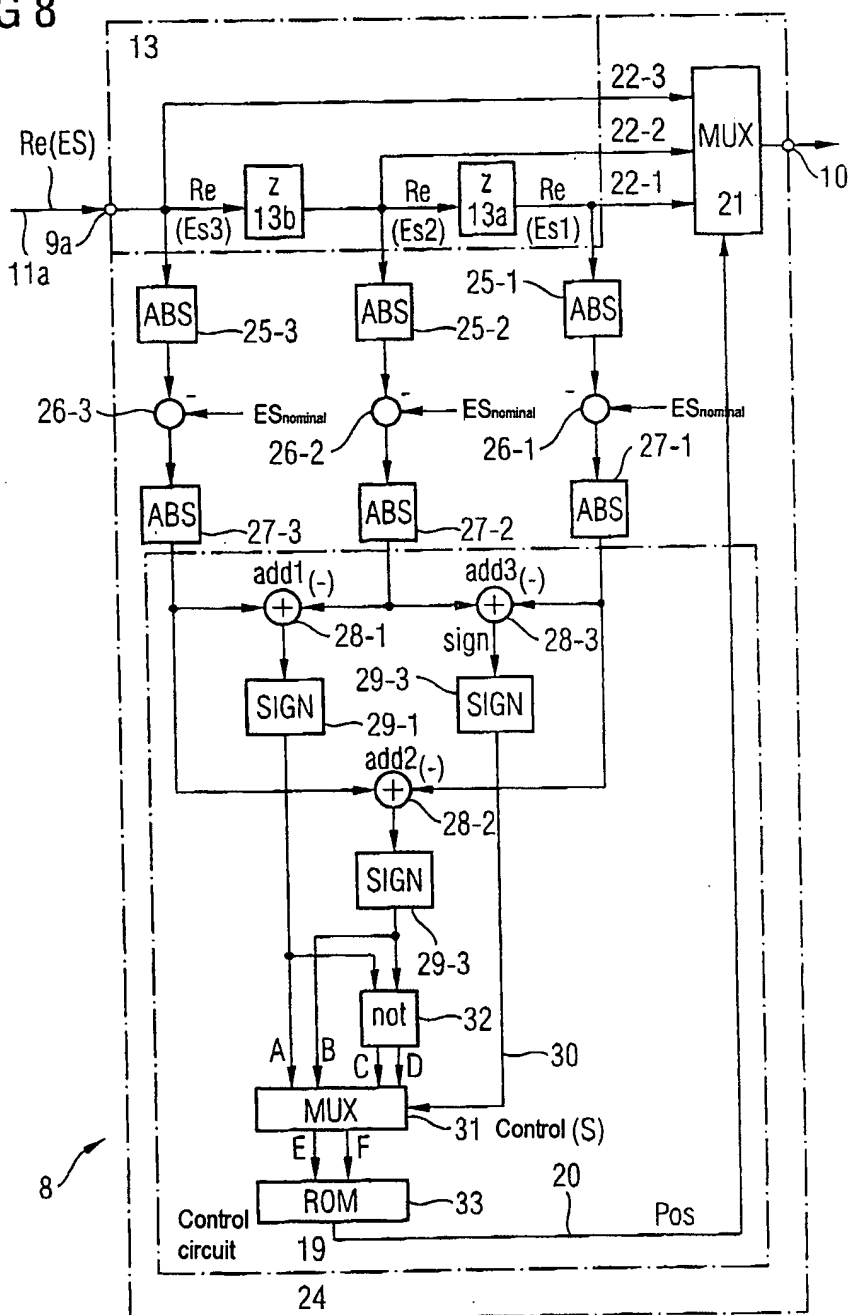
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FIG 7



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FIG 8





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FIG 9

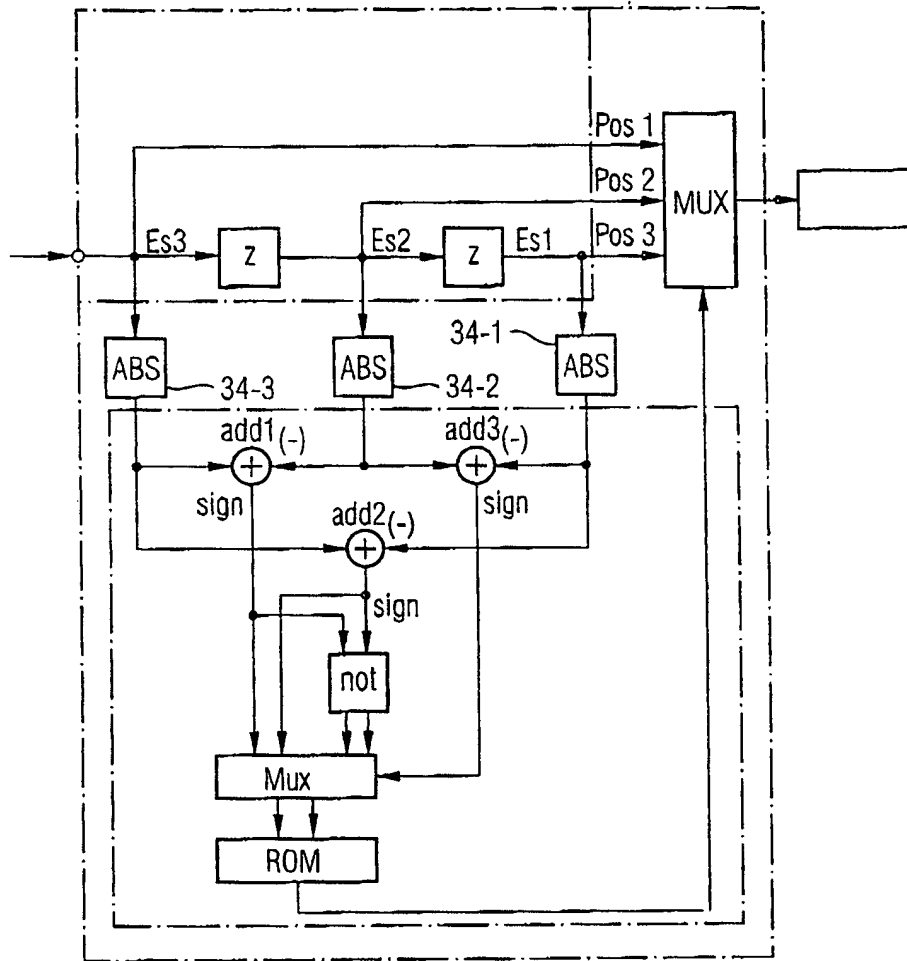


FIG 10

